

What Is Claimed Is:

35. A method of measuring friction performance of a power transmission fluid using an LFW-1 test apparatus, comprising the steps:

applying a first power transmission fluid between a block and ring of an LFW-1 test apparatus;

rotating the ring relative to the block from a velocity of about 0 m/s to about 0.5 m/s in about 40 seconds at a constant rate of acceleration and then rotating the ring relative to the block from a velocity of about 0.5 m/s to about 0 m/s at a constant rate of deceleration to provide a cycle; and

measuring friction between the block and ring during the cycle.

36. The method of claim 35, comprising measuring friction during the cycle to provide about 50 or more measurements.

37. The method of claim 35, comprising measuring friction during the cycle to provide about 100 or more measurements.

38. The method of claim 35, comprising measuring friction during the cycle to provide about 2800 or more measurements.

39. The method of claim 35, comprising repeating the cycle from about 1 to about 50 times.

40. The method of claim 35, wherein the first power transmission fluid is a new fluid.

41. The method of claim 35, wherein the first power transmission fluid is an aged fluid.

42. The method of claim 35, further comprising:

measuring friction of the first power transmission fluid, wherein the first power transmission fluid is a new fluid;

aging the first power transmission fluid to provide an aged first power transmission fluid; and

measuring friction of the aged first power transmission fluid.

43. The method of claim 42, further comprising:

determining friction durability by comparing the measured friction of the aged first power transmission fluid to the new first power transmission fluid.

44. The method of claim 35, comprising:

measuring the friction of a second power transmission fluid, wherein the second power transmission fluid is different from the first power transmission fluid.

45. The method of claim 44, further comprising:

comparing the friction measurements of the first power transmission fluid and the second power transmission fluid; and

selecting the power transmission fluid for a particular power transmitting application based on the measurements.

46. The method of claim 45, wherein the particular power transmitting application comprises one or more of an automatic transmission, a continuously variable transmission, and a torque converter.

47. The method of claim 44, further comprising:

measuring friction of the first power transmission fluid, wherein the first power transmission fluid is a new fluid;

aging the first power transmission fluid to provide an aged first power transmission fluid;

measuring friction of the aged first power transmission fluid;

determining friction durability of the first power transmission fluid by comparing the measured friction of the aged first power transmission fluid to the new first power transmission fluid;

measuring friction of the second power transmission fluid, wherein the second power transmission fluid is a new fluid;

aging the second power transmission fluid to provide an aged second power transmission fluid;

measuring friction of the aged second power transmission fluid; and

determining friction durability of the second power transmission fluid by comparing the measured friction of the aged second power transmission fluid to the new second power transmission fluid.

48. A method of selecting a power transmission fluid for a particular power transmitting application comprising the method of claim 47, further comprising:

selecting a power transmission fluid by comparing the friction durability of the first power transmission fluid and the second power transmission fluid.

49. The method of claim 48, wherein the first power transmission fluid comprises an alkoxyated alcohol and the second power transmission fluid is free of alkoxyated alcohol.

50. The method of claim 48, wherein the first power transmission fluid comprises a first alkoxyated alcohol and the second power transmission fluid comprises a second

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alkoxylated alcohol, the first alkoxylated alcohol being different from the second alkoxylated alcohol.

51. The method of claim 48, wherein the particular power transmitting application comprises one or more of an automatic transmission, a continuously variable transmission, and a torque converter.

FEES/EXTENSIONS

As this Response is submitted within the shortened statutory period, it is believed that no fees are due. However, in the event the calculations are incorrect, the Commissioner is hereby authorized to charge any deficiencies in fees or credit any overpayment associated with this communication to Deposit Account No. 05-1372. In the event the calculation regarding timely filing is incorrect, an appropriate extension of time to respond is also most respectfully requested.

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Respectfully Submitted,

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